

Translation

PATENT COOPERATION TREATY

PCT

PCT/DE2003/004065



541178

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002P19801WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2003/004065	International filing date (day/month/year) 10 December 2003 (10.12.2003)	Priority date (day/month/year) 28 January 2003 (28.01.2003)
International Patent Classification (IPC) or national classification and IPC B60Q 3/04		
Applicant SIEMENS AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>3</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 27 April 2004 (27.04.2004)	Date of completion of this report 12 April 2005 (12.04.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE2003/004065

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
 pages _____ 1, 3-6 _____, as originally filed
 pages _____, filed with the demand
 pages _____ 2, 2a _____, filed with the letter of _____ 09 September 2004 (09.09.2004)
- ☒ the claims:
 pages _____ 2-8 _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____ 1 _____, filed with the letter of _____ 09 September 2004 (09.09.2004)
- ☒ the drawings:
 pages _____ 1/2-2/2 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 03/04065

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-8	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-8	NO
Industrial applicability (IA)	Claims	1-8	YES
	Claims		NO

2. Citations and explanations

1 Reference is made to the following documents:

- D1: US-B-6 499 8521 (TAKAHASHI TOSHINORI ET AL)
31 December 2002
- D2: FR-A-2 761 029 (MAGNETI MARELLI FRANCE)
25 September 1998
- D3: PATENT ABSTRACTS OF JAPAN, Vol. 1998, No. 14,
31 December 1998 & JP-A-10 260 063 (YAZAKI CORP),
29 September 1998
- D4: FR-A-2 779 683 (MAGNETI MARELLI FRANCE)
17 December 1999
- D5: DE-A-198 00 389 (SAGEM) 6 August 1998
- D6: GB-A-1 522 542 (VDO SCHINDLING) 23 August 1978.

2 The present application does not comply with the requirements of PCT Article 33(3), because the subject matter of claims 1 - 8 does not involve an inventive step.

3 INDEPENDENT CLAIM 1

Document D1 is considered to be the closest prior art for the subject matter of independent claim 1. D1 discloses the following features of claim 1 (the references in parentheses are to D1):

a combined instrument (abstract) comprising a printed circuit board on which a display field is mounted directly (column 11, lines 1 and 2), and

a frame in which the printed circuit board is accommodated (figure 14), a light source which generates light for a display illumination being provided on the printed circuit board (column 10, lines 66 and 67).

In D1, a reflecting mirror which is accommodated in the frame in a region adjoining the printed circuit board is provided (column 10, lines 51 to 56; figure 14). The reflecting mirror is arranged in such a way that light emitted by the light source is radiated onto the display field by the reflecting mirror (column 10, lines 51 to 56; figure 14).

The subject matter of claim 1 differs therefore from the known combined instrument in that an optical waveguide is used instead of the reflecting mirror.

The problem addressed by the present invention can therefore be considered that of devising a combined instrument for deflecting the light between the light source and the display field, which is an alternative to the combined instrument known from D1 and which has a simple and economical structure.

An alternative of this kind is shown in D3 (figure 1; abstract), where an optical waveguide is used to deflect the light between the light source and the display field instead of the reflecting mirror. However, it is generally known to those skilled in the art that in this case the feature 'reflecting mirror' is equivalent to the feature 'optical waveguide' known from document D3 and can be interchanged with it, if necessary.

A person skilled in the art would thereby arrive at a combined instrument as per claim 1 without exercising inventive skill.

Consequently, the subject matter of claim 1 does not involve an inventive step.

4 DEPENDENT CLAIMS 2-8

Claims 2 - 8 do not appear to contain any additional features which, in combination with the features of any claim to which the claims refer, meet the PCT requirements for inventive step. The reasons are as follows:

- 4.1 Claim 2: The feature whereby the display field is in the form of a dial printed on the printed circuit board is a conventional measure (see, e.g., D2, page 3, line 35 to page 4, line 3).
- 4.2 Claim 3: The feature whereby the display field is in the form of a dial glued to the printed circuit board is only one of several obvious possibilities from which a person skilled in the art would choose according to the circumstances, without thereby being inventive (see, e.g., D4, page 5, line 32 to page 6, line 2).
- 4.3 Claim 4: The feature whereby the optical waveguide has an input and an output surface and the optical waveguide at least partially surrounds the light source on the printed circuit board is a conventional measure (see, e.g., D2, figure 1).
- 4.4 Claim 5: Furthermore, D2 discloses that the light source is a light-emitting diode above which the optical waveguide is arranged and which inputs the emitted light directly into the optical waveguide (page 4, line 33 to page 5, line 6; figure 1).

However, this is a conventional measure.

- 4.5 Claim 6: D2 further discloses that the optical waveguide deflects the emitted light between the input and the output surfaces (page 5, lines 3 to 6; figure 1). However, this is a conventional measure.
- 4.6 Claim 7: The feature whereby the optical waveguide is made of plastic integral with the frame is also a conventional measure (see, e.g., D3, abstract; figure 1).
- 4.7 Claim 8: The feature whereby the frame and the optical waveguide are produced in one piece by the two-component injection moulding process is only one of several obvious possibilities from which a person skilled in the art would choose according to the circumstances, without thereby being inventive.
- 5 The subject matter of claims 1-8 is industrially applicable.